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OP-ED CONTRIBUTORS

# Plan B in the Gulf

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Over the weekend BP learned that its latest effort at stanching the Deepwater Horizon oil spill — placing a huge metal dome over the leak — had failed. With the oil slick now washing up on the Louisiana shore, the Op-Ed editors asked five experts for their thoughts on what should be done now — and how we can avoid future catastrophes.

## Avoid Dispersants

ONE of the oil industry's favorite tools in fighting oil spills is chemical dispersants — indeed, over 300,000 gallons have been used so far in the Gulf. But as anyone who studied high school chemistry knows, like dissolves like: crude oil responds only to oil-based solvents, which are extremely toxic.

The first dispersants, released in the late 1960s, were quickly shelved because they turned out to harm wildlife more than crude oil did. Drums of Corexit 9527, a dispersant used to clean up the Exxon Valdez spill in 1989, came with warning labels: "prevent liquid from entering sewers, watercourses or low areas." Little has changed in 20 years. Even worse, spraying dispersants in the Gulf in an attempt to minimize the oil's damage to the coast would kill shrimp eggs and larvae and young fish in the open water. They can linger in the water for decades, especially when used in deep water, where low temperatures can inhibit biodegradation. Dispersants may sound like a good idea, but they're bad news, and their use should be avoided unless absolutely necessary. — RIKI OTT, marine toxicologist and author of "Not One Drop: Betrayal and Courage in the Wake of the Exxon Valdez Oil Spill"

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## Forget Acoustic Sensors

IN Norway and Brazil, offshore oil rigs are required to have switches that close valves whenever they sense an acoustic pulse in the water, which could signal a blowout. In the wake of last month's accident, many have argued that similar switches should be

required on American rigs.

But the Deepwater Horizon was hardly without safety precautions: it had manual switches at several different stations and two backups — a "dead man" switch that would automatically send a shut-off signal to the valve if there was a loss of electrical communication from the surface, as well as a mechanism to allow a remotely operated vehicle to shut it off. Either these all failed, or they worked and the valve still failed to close. Would a third backup sending yet another signal reduce risk? Maybe. But it would be of marginal benefit, and could result in a false alarm or premature signal. When a safety switch is thrown, a device cuts the drill pipe, letting it fall into the hole. Fishing it out, and even testing it regularly, is a dangerous proposition, putting worker safety at risk — precisely what such systems are designed to avoid. — KEN ARNOLD, energy industry consultant

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**Stop Outsourcing**

LIKE many other American corporations, oil and gas companies have been outsourcing critical, high-risk operations for several decades, sacrificing control to save money. Today, platforms like the Deepwater Horizon resemble small villages, home to distinct chains of command from several different subcontractors. Workers for different companies may hardly know one another despite working side by side; they often answer to different bosses.

Some argue that the level of specialization and technical expertise required to run a platform demands teamwork by different companies, each with its own research and development and command structures. True, but specialization and cost-cutting can go too far. Fragmented control is not likely to blame for the Gulf spill, but it is likely to hamper the search for the real cause and the effort to enact reforms to keep such disasters from happening again. Slowing, or even reversing, the outsourcing trend is a critical next step for the industry.

— JOHN HOFMEISTER, former president of Shell and author of "Why We Hate the Oil Companies: Straight Talk from an Energy Insider"

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**Soak Up the Oil**

ONE tactic for reducing the amount of oil in the Gulf would be to seed the affected

waters with absorbent materials — for example, cellulose fibers or animal hair — that can soak up oil. Once they've done their job, these materials can be retrieved and either compressed into blocks for burning or, better still, fed to microbes in quarantined spaces. Absorbent materials are cheap and readily available, and there's a fleet of commercial fishing vessels already in place for dispersing them. — TERRY HAZEN, microbial ecologist at Lawrence Berkeley National Laboratory

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## Do Nothing

THE best thing to do in response to the Gulf spill's landfall is ... nothing. Sure, larger oil concentrations can be sopped up, and large animals can be cleaned. But cleanup efforts can do only so much: evidence suggests that they reduce hydrocarbon concentrations only over the short term. And many responses have harmful side effects. Controlled burning spreads toxic materials and kills plants that retard erosion, thus hurting the very lands we're trying to protect. Nutrient-rich detergents or active bioremediation — which encourages the growth of bacteria that can break down oil — can fundamentally disturb the ecological balance for decades.

Instead, we should recognize that nature can do many things far better than we can, and with less collateral damage. Oil is a natural byproduct of biological and geological processes; if left alone in coastal environments, wave action, the sun and microbes in the sediment will naturally break down hydrocarbons. Meanwhile, money saved can go to helping local economies deal with the loss of income, improving safety regulations and enforcement and developing a clean energy policy. — KEVIN M. YEAGER, assistant professor of marine sciences at the University of Southern Mississippi